

Title (en)
Miniaturized motor with gearbox

Title (de)
Miniaturmotor mit Getriebegehäuse

Title (fr)
Moteur miniaturisé avec boîte d'engrenage

Publication
EP 1130742 A1 20010905 (EN)

Application
EP 01400552 A 20010302

Priority
US 51808800 A 20000303

Abstract (en)
A miniaturized motor includes a DC motor (10), a worm (26), a pinion gear (33), a worm gear (35), at least one cluster gear (39, 41, 49, 51), an output gear (59) and an output shaft (60). The gears form a gear train extending from the DC motor to the output shaft. A boss stabilizes the pinion gear by extending downwardly from inside the cover. Acoustical chambers packed with grease suppress noise generated by the gear train. A PC board (54) is also provided on the cover to energize the DC motor. The output shaft may drive either a product mover for beverage cans inside a vending machine or another type of electromechanical unit requiring the application of high torque in a small space. A cradle bearing inside a cover holds a hub of the worm and prevents the worm from bending, thus assuring a good mesh of the worm with the pinion gear. A nest encapsulates the worm, the pinion gear and the worm gear to ensure protection and structural integrity of the miniaturized motor within the small space. <IMAGE>

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H02K 7/116

IPC 8 full level
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CPC (source: EP US)
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Citation (search report)
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